

WHY JAPANESE ACCENT I

— Japanese and English Vowels —

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1. Preface

People frequently talk about 'speaking a foreign language with or without an accent.' It seems inevitable that a Japanese speaks English with Japanese accent, whereas a German speaks it with German accent and an Italian with Italian accent. One should aim at the elimination of one's native accent in learning to speak a foreign language. Leonard Bloomfield once pointed out:

"When a foreign speaker reproduces the phonemic values of our language (i.e. English) so as to make himself understood, but does not distribute the non-distinctive features in accordance with our habit, we say that he speaks our language well enough, but with a foreign accent."¹

This is because "when we try to speak a foreign language or dialect, we are likely to replace its phonemes by the most similar phonemes of our own language or dialect."²

Some may say only the distinctive features of a language function to convey and/or determine meaning, but this is not always the case; so-called 'redundant' features often contribute to the better clarification of meaning, as is pointed out by Akira Ota.³ This error, therefore, of replacing proper speech sounds of a foreign language with one's own native speech sounds must be avoided for the articulatory perfection of the target foreign language as one attempts to learn it, for language is primarily speech which "plays a great part in our life."⁴

This paper attempts to make a suggestion as to how a Japanese native can expect to acquire a better command of the English sound system, by presenting a brief comparative study of the Japanese and English sound systems on the allophonic level.

Language materials dealt with in this paper are mainly the General American dialect of English (abbr. GA), unless otherwise specified, and the Hokkaido dialect of Japanese, which is sufficiently close to the 'standard Japanese'.

2. Speech Sound Types

The sound system of a language is composed of such phonemic and phonetic aspects of the language as:

- a. Individual speech sounds which are classified under such criteria as vocoid and contoid.⁵
- b. Combination patterns of speech sounds, which have much to do with the allophonic features of the speech sounds.
- c. Suprasegmental features of the language, such as intonation patterns, stress

and timing systems, etc.

This present paper considers only the vowel aspect of the English sound system in contrast with that of Japanese, so that the problem of the Japanese accent on English as a Japanese speaks it, may be effectively approached and solved.

3. English and Japanese Monothongs

a. English Monothongs

There are approximately a dozen—the number differing from phonetician to phonetician, depending upon their method of classification—monothongs in the English language, namely:⁶

1) Front Vowels

- /i/ high-front
- /ɪ/ lower high-front
- /e/ higher mid-front
- /ɛ/ lower mid-front
- /æ/ low-front

2) Central Vowels

- /ɜ/ /ə/ /ɝ/ /ɐ/ mid-central
- /ʌ/ lower mid-central
- /ɑ/ low-central advanced

3) Back Vowels

- /u/ high-back round
- /ʊ/ lower high-back round
- /o/ mid-back round
- /ɔ/ higher low-back round
- /ɒ/ low-back round
- /ɑ/ low-back

“In these descriptions it is the position of the highest part of the tongue that is designated, since that is most important for the vowel because it serves to divide the mouth cavity.”⁷ For “a vowel is a form of musical tone and resonance form of the mouth cavity is thus the key to the vowels.”⁸

Any two languages hardly ever share a single identical phoneme in common, which fact alone makes the mastery of the sound system of a foreign language sufficiently difficult. The Japanese learner of English very often tends to replace these more-than-a-dozen vowels with his good old scanty five, only to render his ‘would-be’ English speech sounds barely distinctive to the ear of a native speaker of the language.

b. Japanese Monothongs (according to Bernard Bloch)⁹

- /i/ long voiced prévelar (front) high
 /e/ long voiced prevelar (front) mid
 /a/ long voiced mediovelar (back) low
 /o/ long voiced mediovelar (back) mid, slightly rounded
 /u/ long voiced mediovelar (back) high, slightly rounded

The above-listed vowels have nasal and voiceless variations :

[ĩ] [ẽ] [ã] [õ] [ũ] (usually before nasals, e.g. /m/ /n/ /ŋ/)
 ([bĩŋ] [tẽ·nĩn] [hõ·m·bũn·] kōm·bān·)]

[ɪ] [ʊ] [ʌ] (usually before voiceless consonants)
 ([ʃɪf·joku] [kʊt·tʃɪ] [kʊsa] [tʌ'kaɪ])

The complementary interrelationship between the Japanese and English vowels is as follows :

Japanese Vowels		English Vowels	
/a/*	may replace	/æ/ /ɑ/ /ʌ/ /a/ /ɜ/ /ə/ /ɜ/ /ə/	
/e/	may replace	/e/ /ɛ/	
/i/	may replace	/i/ /ɪ/	
/o/	may replace	/ɔ/ /o/ /ʊ/ /ɑ/	
/u/	may replace	/u/ /ʊ/	

(* Japanese speech sounds italicized to avoid confusion)

4. Tongue Positions for Vowels

Fig. 1 Chart of the Tongue Positions for the Vowels¹⁰

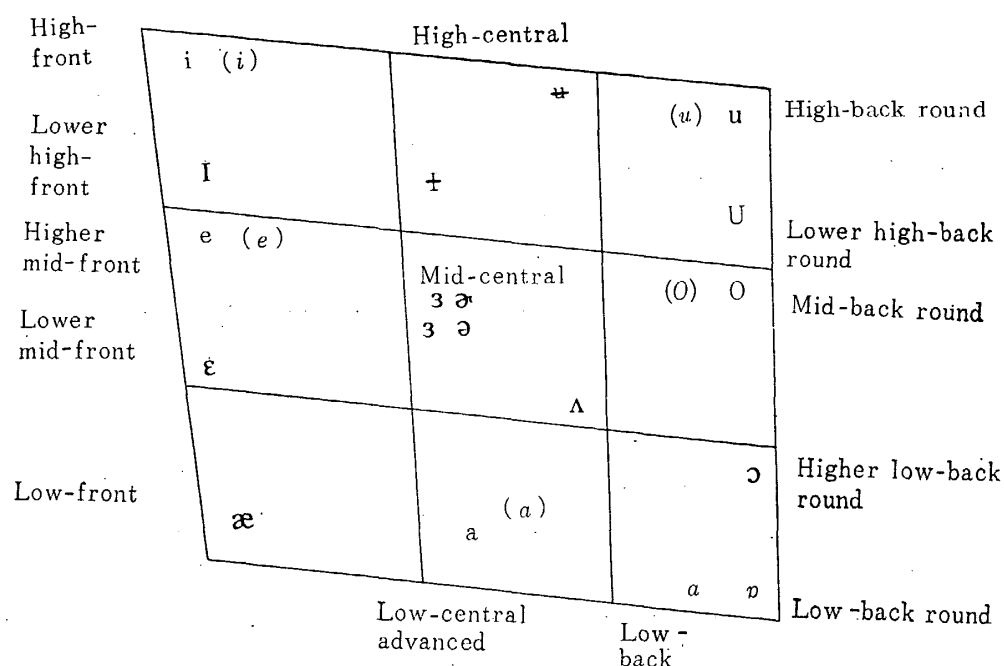


Fig. 2 The Tongue and Lip Positions of the American English Vowels¹¹

		Front	Central	Back		
↑ Lips closed to ↓ Lips open	Tense	i (i)	ɜ	(u) ʊ u	↑ Lips opened to ↓ Lips unrounded	↑ Mouth closed to ↓ Mouth open
	High					
↑ Lips closed to ↓ Lips open	Lax	ɪ	(ɜ)	ʊ		
↑ Lips closed to ↓ Lips open	Tense	e (e)	ɜ ɝ	(o) ɔ		
	Mid					
↑ Lips closed to ↓ Lips open	Lax	ɛ	ə ɜ̃	ʌ		
↑ Lips closed to ↓ Lips open	Tense	æ		ɔ		
↑ Lips closed to ↓ Lips open	Low		(a)			
↑ Lips closed to ↓ Lips open	Lax	æ	a	ɒ		

*(Japanese Vowels not in the original)

As is noticed between Figures 1 and 2 of the English vowel tongue positions, there is always some disagreement from linguist to linguist as to the exact points of articulation, but the differences are usually slight enough to ignore.

*The Japanese vowels are shown in parenthesis for comparison. They are usually tense vowels except in some such specific phonetic surroundings as in 'obasan' 'gakko' 'dango' etc. where the vowel follows a voiced or voiceless stop or a nasal.

* * * * *

Below is discussed each of the English vowels in contrast with its Japanese counterpart.

5. /i/ vs. /i/

The /i/ is closer to its Japanese counterpart than any other English vowel. The English /i/ and the Japanese /i/, the latter being more tense with slightly higher tongue position, are close enough to sound almost identical to an untrained ear so that they may be used interchangeably with little misunderstanding. This is the easiest of the English vowels for a Japanese to learn to utter.

The Japanese /i/ has no unstressed form, whereas the English /i/ is often pronounced [ɪ] when unstressed, as is seen in the case of 'been' [bi:n], which is even

pronounced [bɛn] sometimes in England.¹²

Another problem lies in the 'quantitative' aspect of speech sounds. The Japanese /i/ and /i:/ are two distinctive sounds; /i:/ requires twice as much length of time as /i/ to utter.¹³ The only distinctive feature between the two vowels is the length, the speech sound quality being the same. In English, on the other hand, a stressed vowel tends to be longer in the final position or before a voiced consonant than when followed by a voiceless consonant.¹⁴ (e.g. [sit] vs. [si:d]) But in general the length element is not so important a distinctive feature of a phoneme; [i] and [i:] belong to the same phoneme /i/, while the Japanese [i] and [i:] form two different phonemes.

This explains why a Japanese readily confuses the English /ɪ/ and /i/, by misunderstanding the latter simply as nothing more than a lengthened variation of /ɪ/.

"Only a few laws of vowel quantity are here given since length of vowels, as also of consonants, is seldom distinctive in American English; there are few pairs of words that differ solely in quantity of vowel, and if they differ in length, it is not noticed, because it is not distinctive."¹⁵

6. /ɪ/ vs. /i/

This English vowel /ɪ/ finds no Japanese equivalent, often causing, therefore, a Japanese to confuse this phoneme with /e/. (e.g. [sɪks] vs. [sɛks]) Also, as was discussed in the previous section, this phoneme is regarded and pronounced erroneously by many a Japanese as identical with a 'shortened' /i/, and thus it is likely to be replaced with the Japanese /i/.

7. Unstressed [ɪ]

The Japanese sound system lacks unstressed variety of vowels like the English unstressed [ɪ] as in 'recognize' ['rɛkɪnaɪz].

"Unstressed [ɪ]. The unaccented final sound of words like 'ready' varies considerably in different regions, with different speakers, and according to what sounds immediately follow in actual speech...

"It would sometimes be useful for certain purposes (as in study of dialect) to use a special symbol for the unstressed [ɪ] just as [ɜ] and [ə], [ʌ] and [ə] are distinguished as stressed and unstressed...; it is customary with many phoneticians to use the one symbol [ɪ] for both, ...the variation of unstressed [ɪ] is indicated only when it reaches the stage [ə]..."¹⁶

The unstressed [ɪ] does not seem to be very difficult for the Japanese to discern so long as the vowel is detectable in terms of the way it is spelled: benefit, hostess, greatest, etc. where the i's and e's are suggestive of the unstressed [ɪ]; whereas, on the other hand, in such words as character, surface, recognize, lettuce, message, marriage, it is very likely that a Japanese finds it difficult to regard these a's, o's and u's as sounding like /ɪ/.

8. /ɛ/ vs. /e/

/ɛ/ requires a lower tongue position than the Japanese /e/ and has a darker coloring and a longer duration of time. The Japanese /e/ is closer to the unstressed English /e/ as in 'vacation' [ve'keʃən]. The stressed /e/ will be discussed in relation to the Japanese diphthong /ei/.

9. /æ/ /ɑ/ /ʌ/ /ə/ /a/ vs. /a/

/æ/ which is commonly designated the 'flat a' is a low-front vowel; it actually is the *lowest* front vowel. It is usually a lax vowel although a tense variety of the vowel exists. The vowel /æ/ has some variations, two major ones of which are the raised longer and tense variation [æ^{1ə}], and the open lax type. To the former belongs the /æ/ as in the so-called 'ask' words, last, ham, cash, master, hand, badge, dance, bag, bad, cram, sag, handle, salve, fancy. The other group of words containing the open lax /æ/: hat, rat, sat, fat, nap, map, gap, rack, back, stack, shack, catch, hatch, batch, latch, etc.¹⁷ If the first group of words is pronounced with the open lax /æ/, the resulting impression is strange and unnatural; and vice versa.

This vowel /æ/ is as difficult for a Japanese to properly pronounce as it is easy to recognize, for the above-listed variations have no significance in the Japanese sound system. This can be said of other English vowels which the Japanese recognize as similar to their /a/; the lowest mid-front vowel /a/ and the lowest back vowel /ɑ/—the so-called 'broad a'—are no more than allophones of /a/ when introduced into the Japanese sound system. The Japanese, then, are confronted with the problem of discerning /a/ and /ɑ/, the two important English phonemes.

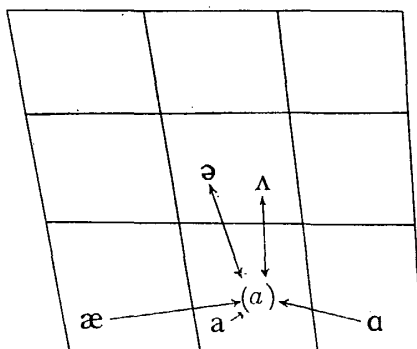
The mid-central vowels /ʌ/ and /ə/ are also difficult for a Japanese to properly recognize and pronounce for the same reason. (According to some linguists, /ə/ is an unaccented variation of /ʌ/, while others use the phonetic symbol ə for both the accented and unaccented variations.)

"The substitution of low, somewhat fronted [ɑ¹], or the low back /ɔ/, for the central vowel /ʌ/ in *up* and *cut*, may be heard in the speech of non-native speakers. /ʌ/ is an uncommon sound in other languages and is not too easily distinguished from adjacent phonemes with somewhat similar acoustic values."¹⁸

Japanese is no exception to the above statement, although in some dialects of the language /ʌ/ is recognized.¹⁹

All the above-listed vowels, if adopted in the Japanese language, would be classified under /a/ as its allophones. This means, on the other hand, that a Japanese tends to replace all these English vowels with his single /a/, inevitably causing confusion and misunderstanding on the part of the hearer of the vowels if thus pronounced.

It is only after a great deal of practice by the use of minimum pairs and any other means possible that a Japanese is able to learn to pronounce and recognize these English vowels in question, with satisfactory proficiency.



10. /ʊ/ /u/ vs. /u/

One of the prevailing misconceptions among the phonetically untrained Japanese about /ʊ/ and /u/ is that /u/ is nothing short of an elongated variety of /ʊ/, which is in fact quite another phoneme, distinctive both in quality and quantity. The former is a 'high-back round' vowel, and the latter 'lower-high-back round'. These two are difficult for a Japanese native to distinguish between, but still more difficult is how to tell them from the Japanese /u/. One of the distinguishing features is that the Japanese /u/ is 'unrounded' or 'slightly rounded' vowel, sometimes transcribed [ɯ]. That is to say, the Japanese /u/ totally or almost totally lacks the lip-rounding in articulation, which is the ever-present characteristic of the English /ʊ/ and /u/; the Japanese /u/ is produced through the flat mouth cavity formation.²⁰

11. /ɔ/ /ɒ/ /ɑ/ vs. /o/

According to Kenneyon,²¹ there are three variation of /ɑ/ in terms of the way the phoneme is spelled in American English: 1. *a* as in 'father', 2. *o* as in 'stop', 3. *wa* as in 'watch'. In British English the third variation is shifted to the second, under the influence of the lip-rounded /w/. The present southern British English /ɑ/ being nearer to /a/ than its American counterpart, and the southern British /ɔ/ to /o/, the average Japanese, strongly influenced by British English with which they have been more familiar for generations than with American English, have difficulty in discriminating between and producing the American /ɑ/ /ɒ/ and /ɔ/.

Another factor adding to the difficulty is the Japanese tendency toward the so-called spelling pronunciation. The Romanized rendering of Japanese requires the letter 'o' to be pronounced [o], which habit the Japanese find too familiar to easily get rid of, so that they can hardly associate the letter 'o' with /ɒ/, much less with /ɑ/ which no lip-rounding accompanies.

In average English-Japanese dictionaries currently in use, the phonetic symbol 'ɔ' is often used interchangeably with or in place of /ɑ/, /ɒ/ or /ɔ/ respectively, of American variety of English. The American /ɔ/ is not so near to /o/ as the British /ɔ/ is; many Americans pronounce /ɔ/ which is acoustically not far from the British /ɒ/.²²

More instances of common pronunciation types of these phonemes are given

below, which are usually represented by the letter 'o':

- a. /ɔ/ (British pronunciation /ɒ/) when followed by an /r/+a vowel:
foreign, horrid, laurel, tomorrow, orange, origin, sorry, etc.
- b. /ɑ/ when followed by a voiceless fricative:
coffee, cough, broth, cloth, Boston, frost, loss, etc.
- c. Exclusively /ɔ/ when followed by an 'r'.
for, form, war, quart, etc.
- d. /ɒ/ when followed by /ʃ/:
splosh, squash, swash, wash, etc.
- e. /ɑ/ when followed by an affricate:
botch, crotch, watch; dodge, hodge, lodge, etc.
- f. /ɑ/ when followed by /l/:
doll, toll, folly, golly, volley, follow, hollow, wallet, etc.
- g. /ɔ/ when followed by /ŋ/:
gong, long, song, strong, throng, tongs, wrong. etc.
- h. /ɑ/ when followed by a stop:
job, mob, rob; chop, cop, drop; cod, God, nod; blot, cot, dot; bog, cog, dog;
clock, cock, dock, etc.
- i. /ɑ/ when followed by a nasal:
Tom, non-, prompt, swan, swamp, wander, want, etc.
But, gone /gɔn/, shone /ʃɔn/; also /wɔnt/ is coexistent with /want/ and /wɒnt/.

in view of /ɑ/ /ɒ/ and /ɔ/ as they appear in the above-listed specimens, these are to be regarded as allophones of the /ɔ/ family; so that they are in complementary distribution with one another.

But still, this should not justify the use of the Japanese /o/ replacing the English vowels in question. The Japanese 'accent' must be strongly warned against in the production of these phonemes.

12. Diphthongs

Japanese is what is called a syllable-timed language²³ which is different from a stressed-timed language, English for instance, whose length value of stressed syllables is more conspicuous. Japanese vowels, when occurring in succession within the same rhythm unit, are of the same quantitative value.

Japanese diphthongs lack 'glide' characteristics, for "two different consecutive vowels are pronounced without interruption but without fusion; each vowel is part or all of a separate syllable. (examples: ie, meuma, hai, mae, o-kao, etc.)"²⁴

"Two like vowels in succession are pronounced as a phonetically overlong vowel, equal in duration to two vowels of normal length."²⁵ (examples: ii [i:] ooki [o:ki])

Of /ai/, the constituent /a/ and /i/ are of the same length in duration, whereas

of the English "I" /aɪ/ the first element /a/ is longer and more conspicuous than the second and lesser element /ɪ/, which is often transcribed as a glide /j/.

"We have observed the English diphthongal vowels [ij] [ej] [uw] [ou] characteristics of which are the facts that ... the course of the development of the vowel is from less to more tense or close, and that the first element is more prominent acoustically and usually longer than the second. The second or subordinate element of such diphthongal vowels is sometimes spoken of as a glide vowel, rather than a full vowel."²⁶

"Though true diphthongs are continuous glide sounds, for convenience sake we speak of the first and second elements. In saying that first element of /aɪ/ is /a/, we mean that the diphthong begins with the position for /a/. The stressed part of a diphthong is called the syllabic vowel of the diphthong, and the unstressed part the nonsyllabic vowel. But it must be remembered that they are not separate vowels, being only parts of a continuously gliding vocalic sound."²⁷

Japanese diphthongs possess no diphthongal glide nor do they give prominence to the first element of a diphthong unless it is accented. The fact, it would be interesting to notice, that some speakers of Japanese pronounce the word 'ooi'—meaning 'many' or 'much'—like [oi:] in spite of its standard pronunciation [ó:i], may point to the tendency that accentuation does not play so important a role in Japanese as in English to determine meaning; the Japanese seem to attach less significance to where prominence should be placed in an utterance. The Kanto dialects and the Kansai dialects of Japanese very often disagree as to where accent should fall within a word.

/ei/ and /ou/

These Japanese diphthongs are very rarely pronounced [ei] and [ou], but almost invariably change into 'overlong vowels' [e:] and [o:] respectively, which are given twice as much duration value as a short [or *long* according to Bloch] vowel.²⁸

This clarifies the difficulty the Japanese have in discriminating and pronouncing properly such pairs of English words as: /bet/-/bet/. /bot/-/bɔ:t/, etc.²⁹

*Lip-Rounding

The rounding of lips is conspicuous in the English diphthongs /au/ and /ou/ (or /o/), which the Japanese counterparts /au/ and /ou/ lack almost completely.

**/ɪu/ and /ju/

The distinction between the falling diphthong /ɪu/ and the rising diphthong /ju/ is rather allophonic, of which the average Japanese are quite unaware. /ɪu/ is widely used in the United States according to Grandgent, who "demonstrated the frequency of /ɪu/ in America in collections that showed /ɪu/ in 35 to 60 per cent of the speakers tested."³⁰

Examples:

/ɪu/ (a falling diphthong):

beauty, feud, view, cure, mule, etc.

/ju/ (a rising diphthong)

tune, new, statue, used to*, etc.

*Note the contrast:

Jacob *used* it. [juzd]

Jacob *abused* it. [ə'bɪuzd]

The rising diphthong /ju/ and the falling diphthong /ɪu/ are in many cases collateral, and both are often replaced with /u/: e.g. /nu/, /gru/, /flut/, etc.

The above-mentioned rising and falling diphthongs have no Japanese counterparts; the Japanese /ɪu/ is invariably pronounced [ju].

*** 'R' Diphthongs

"As the British and the Eastern and Southern American centering diphthongs end in the central vowel /ə/ (fear /fɪə/, there /ðæə; ðɛə/, etc.) so the GA 'diphthongs' end in the central r-colored nonsyllabic vowel /r/. Thus we have the diphthongs /ɪr/ (we're /wɪr/, see here /sɪr/), /ɪr/ (weir /wɪr/), /æɪr/ (there /ðæɪr/), /ɛɪr/ (there /ðɛɪr/), /ɑɪr/ (far /fɑɪr/), /ɔɪr/ (for /fɔɪr/) or (gourd /gɔɪr/, /ʊr/ (poor /pʊr/), etc."³¹

British English lacks this 'r' coloring except the linking 'r' which American English does not possess because of the 'r' diphthongs. These 'r' diphthongs are foreign to the Japanese sound system, but they are not impossible for a Japanese to learn to produce, when he has mastered the English 'r' phoneme.

13. Quantitative Values of Vowels

Japanese diphthongs and long vowels are always twice as long as short vowels. (e.g. /i: (=ii) kao/; /bo:fu.ke:ho:/, etc.) A long vowel is invariably long, and a short vowel short; accentuation does not increase the quantitative duration of a vowel, as is always the case with English vowels which are lengthened when stressed.

"The low-front vowel /æ/, ... and the low-back /ɑ/ ... are particularly subject to lengthening under stress. Such words as sat, had, lot, odd, when stressed, often have fully long [æ:] and [ɑ:] respectively."³²

What is more important is that "... length of vowels, as also of consonants, is seldom distinctive in American English."³³

According to Kenneyon there are four cases in which vowel quantity differs between certain pairs of words.³⁴

- a. The same vowel, if stressed, is longer when final or before a voiced consonant than it is before a voiceless consonant:

/si:/, /sɪd/-/sɪt/

- b. The same vowel, if stressed, is longer when final or before a final consonant than it is when followed by an unaccented syllable:

/ste:/, /ste:d/-/steɪn/

- c. The same vowel, if stressed, is longer when followed by a sonorant /m/, /n/,

/ŋ/, /l/ + a voiced consonant than it is when followed by the sonorant + a voiceless consonant.

/pe:nd/-/pent/

- d. The same vowel becomes longer or shorter as its stress is increased or decreased :

/'no:təbl/-/no:tə'biliti/-/no'teʃən/

The above-listed rules are to be observed in order to achieve a perfect 'English' accent, although they are of an allophonic character, not being distinctive.

The average Japanese people often misunderstand that quantitative values of English vowels are distinctive, probably because Daniel Jones mentioned long and short vowels in his "Outline of English Phonetics".³⁵ They usually think 'beat' has a longer vowel than 'bid', but this is not the case. Likewise, "the 'short a' in *sand* is actually longer than the 'long a' in *late*."³⁶

This misconception is very difficult for a Japanese to get rid of, because the idea of a long vowel and a short vowel is innate with his mother tongue.

14. Glottal Stop

Japanese has the glottal stop which "is in complementary distribution with all the other stops; these are in contrast with each other. [ʔ,p] [ʔ,t] [ʔ,k]"³⁷

But the Japanese are usually unaware that in English a glottal stop occurs before an initial stressed vowel, sometimes between vowels when the second vowel begins a stressed syllable, and as a transition sound from a final to an initial vowel.³⁸ This glottal stop is not distinctive, for "using it or omitting it does not change the meaning of any word. Instead it is stylistic, giving to a word an effect which is emotionally different because of its use. Thus *oh* pronounced [ʔou] differs from [ou]. The glottal stop sometimes serves a useful purpose in English by way of distinguishing between what would otherwise be ambiguous expressions. It is possible, for instance, to distinguish between *some mice* [semmaɪs] and *some ice* [səm ʔaɪs] by using the lengthening sign and the glottal stop in contrast."³⁹

Examples :

east	[ʔɪst]	—	cf. yeast	[jɪst]
ear	[ʔɪə]	—	cf. year	[jɪə]
an easy situation	[ən ʔɪzɪ sɪtʃu'eʃən]			
an uneasy situation	[ən ʔənɪzɪ sɪtʃu'eʃən]			
I'm ill	[ʔaɪm ʔɪl]	<i>but not</i>	[ʔaɪmɪl]	
eat	[ʔɪt]	it	[ʔɪt]	
eat it	[ʔɪtɪt]			
Don't ever do that!	[dɒnt ʔɛvə du ðæt]			
My own.	[maɪ ʔəʊn]			
India Office.	[ʔɪndɪə ʔɒfɪs]			

Triumphant	[traɪˈʌmfənt]
How much do I owe you?	[haʊ mʌtʃ du ˈaɪ ˈoʊ ju]
He went to Italy.	[hi wɛntə ˈɪtəlɪ]

15. Gradation — Stress and Vowel Change

As was briefly discussed in Section Seven “Unstressed /ɪ/”, the English language has a noteworthy phonetic rule of gradation, which determines the interrelationship between the stress system and the vowel quality.

“It is a characteristic of English, deeply inbedded in its long history, that the vowels of unaccented syllables have gradually become obscured to a sound quite a different in resonance, or quality, from what they had formerly been, and from the present-day vowels that have preserved their full quality under accent.”⁴⁰

Examples :

Full Vowel		Reduced Vowel	
compete	[kəmˈpɪt]	competition	[kəmˈpɪtʃən]
dividend	[ˈdɪvədənd]	divide	[dɪˈvaɪd]
chase	[ˈtʃes]	purchase	[ˈpɜrtʃəs]
distress	[dɪˈstres]	mistress	[ˈmɪstrɪs]
landlord	[ˈlændlɔrd]	England	[ˈɪŋɡlənd]
conduct n.	[ˈkɒndʌkt]	conduct v.	[kənˈdʌkt]
offer	[ˈɒfə]	offend	[əˈfend]
folk	[ˈfɒk]	Norfolk	[ˈnɔrfək]
doom	[ˈdʊm]	kingdom	[ˈkɪŋdəm]
firm	[ˈfɜm]	confirmation	[kənˈfəˈmeɪʃən]
upper	[ˈʌpə]	upon	[əˈpən]
bypath	[ˈbaɪpæθ]	two by two	[ˈtu bə ˈtu]
found	[ˈfaʊnd]	New Foundland	[ˈnju fəndˈlənd]

In some cases an unstressed vowel is completely lost.

Examples :

fourteen	[fɔːˈtiːn]	fortnight	[ˈfɔːtˌnaɪt]
rebel n.a.	[rɪˈbeɪl]	rebel v.	[ˈreɪbl̩]
fatality	[feɪˈtælətɪ]	fatal	[ˈfetl̩]
full	[ˈfʊl]	awfully	[ˈɔflɪ]
son	[ˈsʌn]	Wilson	[ˈwɪlsn̩]

There are, moreover, some words which have both stressed and unstressed forms. They are usually what are called function words, i.e. articles, conjunction, prepositions, auxiliary verbs; plus some pronouns.

Examples :	Stressed Form	Unstressed Form
am	Indeed I <i>am</i> . [æm]	I <i>am</i> ready. [əm]
and	<i>And</i> indeed I should. [ænd]	snow <i>and</i> ice. [ən] head <i>and</i> arm [nd] bread <i>and</i> butter [n] up <i>and</i> down [m]
as	<i>as</i> he came [æz]	just <i>as</i> good [əz] not so good <i>as</i> it was [z] not so light <i>as</i> it looks [s]
it's	<i>It's</i> my fault. [Its]	<i>It's</i> cold [sʔkold]
I	<i>I</i> saw him at church. [aɪ]	I did all <i>I</i> could. [ə] ⁴¹

It is a fact, on the other hand, that Japanese has what is called 'ombin'—an euphonic change—where certain syllables are phonetically changed, shortened, partially or completely deleted. But this sound quality change, unlike that of English, has little to do with the presence or absence of an accent.

Examples :

orenchi	[orentʃi]	(=ore no uchi)
shitchanai	[ʃitʃanai]	(=shittewa inai)
omoshii	[omoʃi:]	(=omoshiroi)

"Duration is not significant in English except in very rare instances.... Since changes of length...take place in the utterance of English-speaking people automatically and without significance, it is of little value to the laymen even to know of the changes; but to the foreigner in whose language such changes do not always parallel those of English, knowledge of these differences of length is very valuable in gaining a spoken style more nearly like that of the English speaker."⁴²

16. Conclusion

Many of the allophonic features both in qualitative and quantitative aspects of the English vowels have been very briefly discussed, whose knowledge will prove helpful to the Japanese student of English approach a more perfect mastery of the English sound system, by providing him with better knowledge of contrastive features existing between the two languages.

The writer's intention is to supplement this paper with another on contour and over-all patterns of suprasegmental features including stress system, intonation patterns, etc. so as to give Japanese students a more complete understanding of their problems they are confronted with in their attempt to learn better English speech sounds.

What is quoted below applies not only to the unstressing system but to every other aspect of English speech sound learning.

“It should be added for foreign students that the mastery of the English system of unstressing is one of the most important ways of acquiring what is known as a good English accent. Such students must bear in mind that only in stressed syllables are vowels pronounced with what may be called normal value. In unstressed syllables, vowels are reduced to /ə/ or /ɪ/; as an inevitable concomitant, they are also reduced in intensity, i.e., loudness. Such pronunciation will sound careless to the foreign student; but, paradoxically, in English the speaker must be exceedingly careful to observe this apparent carelessness in unstressed syllables.”⁴³

References :

1. Leonard Bloomfield : Language, Allen & Unwin (1935) p. 80.
2. *ibid.* p. 8.
3. Akira Ota : Beigo Onsonon, Kenkyusha (1959) p. 111.
4. Language p. 3.
5. Kenneth L. Pike : Phonetics, Univ. of Michigan Press, (1943) p. 143.
6. John S. Kenyon : American Pronunciation, Wahr (1969) p. 61.
7. *ibid.* p. 59.
8. *ibid.* p. 52.
9. Bernard Bloch : Studies in Colloquial Japanese IV : Phonemics Language 26, 1950; Readings in Linguistics, Univ. of Chicago Press (1957) pp. 337-338.
10. American Pronunciation : p. 61.
11. Arthur J. Bronstein : The Pronunciation of American English, Appleton-Century-Crofts (1960) p. 141.
12. American Pronunciation : p. 168.
13. Shiro Hattori : Onseigaku, Iwanami (1951) p. 169.
14. American Pronunciation p. 63.
15. *ibid.* p. 62.
16. *ibid.* p. 170.
17. *ibid.* p. 153.
18. *ibid.* pp. 175-176.
19. Studies in Colloquial Japanese IV : Phonemics p. 337.
20. *ibid.* p. 338.
21. American Pronunciation p. 177.
22. *ibid.* pp. 186-188.
23. Toshiaki Fukuhara : Syllable Timing of Japanese, Culture and Language, Sapporo University (1973) pp. 19-29.
24. Studies in Colloquial Japanese IV : Phonemics p. 338.
25. *ibid.* p. 335.
26. R-M. S. Heffner : General Phonetics, Univ. of Wisconsin Press (1964) p. 110.
27. American Pronunciation p. 209.
28. Onseigaku p. 169.
29. The Pronunciation of American English p. 167.
30. A Pronouncing Dictionary of American English, G. & C. Merriam (1953) p. xlii.

31. American Pronunciation p. 222.
32. *ibid.* p. 63.
33. *ibid.* p. 62.
34. *ibid.* p. 63.
35. Daniel Jones: An Outline of English Phonetics, Heffer (1956) p. 63.
36. American Pronunciation p. 62.
37. Studies in Colloquial Japanese IV: Phonemics p. 339.
38. The Pronunciation of American English p. 79.
39. Claude Merton Wise: Applied Phonetics, Prentice Hall (1957) p. 127.
40. American Pronunciation p. 95.
41. *ibid.* pp. 91-112.
42. Claude Merton Wise: Introduction to Phonetics, Prentice Hall (1958) pp. 118-119.
43. Applied Phonetics p. 15.